

Claims

What is claimed is:

1. A method of performing high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the method comprising:
 - booting the target computer system to a multi-tasking operating system ("OS");
 - launching a step sequencing engine application;
 - the step sequencing engine application simultaneously launching a diagnostics platform and a software download manager; and
 - the diagnostics platform initiating a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launching a software download tool for downloading customer software to a hard drive of the target computer system.
2. The method of claim 1 wherein two or more of the diagnostics tests are performed in parallel.
3. The method of claim 1 wherein an order and sequence in which the diagnostics tests are performed are specified in a step file associated with the target computer system.
4. The method of claim 1 further comprising:
 - creating a customer partition on the hard drive of the target computer

system;

creating a floating partition on the hard drive of the target computer

system;

wherein the multi-tasking OS is stored on the floating partition; and

wherein the customer software is downloaded to the customer partition.

5. The method of claim 4 wherein the floating partition is deleted subsequent to downloading the customer software and performing the diagnostics tests.
6. The method of claim 1 further comprising logging results of each of the diagnostics tests to a server connected to the target computer system.
7. The method of claim 1 further comprising, responsive to failure by the target computer system of one or more of the diagnostics tests, debugging the target computer system using tools integrated into the step sequencing engine application.
8. The method of claim 7 wherein the debugging comprises opening a Main window of the step sequencing engine application to view results of the diagnostics tests.
9. The method of claim 8 wherein the debugging further comprises accessing an EMR Control window of the step sequencing engine application and rerunning specified diagnostics tests on the target computer system directly from the EMR Control window.
10. The method of claim 8 wherein the debugging further comprises accessing a Logs window of the step sequencing engine application and accessing logs

associated with the results of the diagnostics tests performed on the target computer system directly from the Logs window.

11. A system for enabling the performance of high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the system comprising:
 - means for booting the target computer system to a multi-tasking operating system ("OS");
 - means for launching a step sequencing engine application for simultaneously launching a diagnostics platform and a software download manager;
 - wherein the diagnostics platform initiates a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launches a software download tool for downloading customer software to a hard drive of the target computer system.
12. The system of claim 11 wherein two or more of the diagnostics tests are performed in parallel.
13. The system of claim 11 further comprising a step file associated with the target computer system, wherein an order and sequence in which the diagnostics tests are performed are specified in the step file.
14. The system of claim 11 further comprising:
 - means for creating a customer partition on the hard drive of the target computer system;
 - means for creating a floating partition on the hard drive of the target

computer system;

wherein the multi-tasking OS is stored on the floating partition; and

wherein the customer software is downloaded to the customer partition.

15. The system of claim 14 wherein the floating partition is deleted after the downloading of customer software is completed and the diagnostics tests have been performed.
16. The system of claim 11 further comprising means for logging results of each of the diagnostics tests to a server connected to the target computer system.
17. The system of claim 11 further comprising means integrated into the step sequencing engine application for debugging the target computer system responsive to failure by the target computer system of one or more of the diagnostics tests.
18. The system of claim 17 wherein the means for debugging comprises a Main window of the step sequencing engine application for displaying results of the diagnostics tests.
19. The system of claim 18 wherein the means for debugging further comprises an EMR Control window of the step sequencing engine application from which specified diagnostics tests on the target computer system can be directly rerun.
20. The system of claim 18 wherein the means for debugging further comprises a Logs window of the step sequencing engine application from which logs associated with the results of the diagnostics tests performed on the target

computer system can be directly accessed.

21. A method of performing high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the method comprising:
 - booting the target computer system to a multi-tasking operating system ("OS");
 - launching a step sequencing engine application;
 - the step sequencing engine application simultaneously launching a diagnostics platform and a software download manager;
 - the diagnostics platform initiating a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launching a software download tool for downloading customer software to a hard drive of the target computer system; and
 - upon completion of the diagnostics tests and the customer software downloading, rebooting the target computer system.
22. The method of claim 21 wherein two or more of the diagnostics tests are performed in parallel.
23. The method of claim 21 wherein an order and sequence in which the diagnostics tests are performed are specified in a step file associated with the target computer system.
24. The method of claim 21 further comprising:
 - creating a customer partition on the hard drive of the target computer system;

creating a floating partition on the hard drive of the target computer system;
wherein the multi-tasking OS is stored on the floating partition; and
wherein the customer software is downloaded to the customer partition.

25. The method of claim 24 wherein the floating partition is deleted subsequent to rebooting the target computer.
26. The method of claim 21 further comprising logging results of each of the diagnostics tests to a server connected to the target computer system.
27. The method of claim 21 further comprising, responsive to failure by the target computer system of one or more of the diagnostics tests, debugging the target computer system using tools integrated into the step sequencing engine application.
28. The method of claim 27 wherein the debugging comprises opening a Main window of the step sequencing engine application to view results of the diagnostics tests.
29. The method of claim 28 wherein the debugging further comprises accessing an EMR Control window of the step sequencing engine application and rerunning specified diagnostics tests on the target computer system directly from the EMR Control window.
30. The method of claim 28 wherein the debugging further comprises accessing a

Logs window of the step sequencing engine application and accessing logs associated with the results of the diagnostics tests performed on the target computer system directly from the Logs window.

31. A system for enabling the performance of high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the system comprising:
 - means for booting the target computer system to a multi-tasking operating system ("OS");
 - means for launching a step sequencing engine application for simultaneously launching a diagnostics platform and a software download manager;
 - wherein the diagnostics platform initiates a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launches a software download tool for downloading customer software to a hard drive of the target computer system; and
 - means for rebooting the target computer system upon completion of the diagnostics tests and the customer software downloading.
32. The system of claim 31 wherein two or more of the diagnostics tests are performed in parallel.
33. The system of claim 31 further comprising a step file associated with the target computer system, wherein an order and sequence in which the diagnostics tests are performed are specified in the step file.
34. The system of claim 31 further comprising:

means for creating a customer partition on the hard drive of the target computer system;

means for creating a floating partition on the hard drive of the target computer system;

wherein the multi-tasking OS is stored on the floating partition; and

wherein the customer software is downloaded to the customer partition.

35. The system of claim 34 wherein the floating partition is deleted subsequent to rebooting the target computer system.
36. The system of claim 31 further comprising means for logging results of each of the diagnostics tests to a server connected to the target computer system.
37. The system of claim 31 further comprising means integrated into the step sequencing engine application for debugging the target computer system responsive to failure by the target computer system of one or more of the diagnostics tests.
38. The system of claim 37 wherein the means for debugging comprises a Main window of the step sequencing engine application for displaying results of the diagnostics tests.
39. The system of claim 38 wherein the means for debugging further comprises an EMR Control window of the step sequencing engine application from which specified diagnostics tests on the target computer system can be directly rerun.
40. The system of claim 38 wherein the means for debugging further comprises a

Logs window of the step sequencing engine application from which logs associated with the results of the diagnostics tests performed on the target computer system can be directly accessed.

41. A method of performing high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the method comprising:
 - booting the target computer system to a multi-tasking operating system ("OS");
 - launching a step sequencing engine application;
 - the step sequencing engine application simultaneously launching a diagnostics platform and a software download manager;
 - the diagnostics platform initiating a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launching a software download tool for downloading customer software to a hard drive of the target computer system; and
 - upon completion of the diagnostics tests and the customer software downloading, rebooting the target computer system to a non-multitasking OS.
42. The method of claim 41 wherein two or more of the diagnostics tests are performed in parallel.
43. The method of claim 41 wherein an order and sequence in which the diagnostics tests are performed are specified in a step file associated with the target computer system.
44. The method of claim 41 further comprising:

creating a customer partition on the hard drive of the target computer system;

creating a floating partition on the hard drive of the target computer system;

wherein the multi-tasking OS is stored on the floating partition; and

wherein the customer software is downloaded to the customer partition.

45. The method of claim 44 wherein the floating partition is deleted subsequent to rebooting the target computer system to a non multitasking OS. .
46. The method of claim 41 further comprising logging results of each of the diagnostics tests to a server connected to the target computer system.
47. The method of claim 41 further comprising, responsive to failure by the target computer system of one or more of the diagnostics tests, debugging the target computer system using tools integrated into the step sequencing engine application.
48. The method of claim 47 wherein the debugging comprises opening a Main window of the step sequencing engine application to view results of the diagnostics tests.
49. The method of claim 48 wherein the debugging further comprises accessing an EMR Control window of the step sequencing engine application and rerunning specified diagnostics tests on the target computer system directly from the EMR Control window.

50. The method of claim 48 wherein the debugging further comprises accessing a Logs window of the step sequencing engine application and accessing logs associated with the results of the diagnostics tests performed on the target computer system directly from the Logs window.
51. A system for enabling the performance of high-speed software downloads to and diagnostics testing of a target computer system in a manufacturing environment, the system comprising:
- means for booting the target computer system to a multi-tasking operating system ("OS");
 - means for launching a step sequencing engine application for simultaneously launching a diagnostics platform and a software download manager;
 - wherein the diagnostics platform initiates a plurality of diagnostics tests to be performed on the target computer system and the software download manager simultaneously launches a software download tool for downloading customer software to a hard drive of the target computer system; and
 - means for rebooting the target computer system to a non-multitasking OS upon completion of the diagnostics tests and the customer software downloading.
52. The system of claim 51 wherein two or more of the diagnostics tests are performed in parallel.
53. The system of claim 51 further comprising a step file associated with the target computer system, wherein an order and sequence in which the diagnostics tests are performed are specified in the step file.

54. The system of claim 51 further comprising:
- means for creating a customer partition on the hard drive of the target computer system;
 - means for creating a floating partition on the hard drive of the target computer system;
 - wherein the multi-tasking OS is stored on the floating partition; and
 - wherein the customer software is downloaded to the customer partition.
55. The system of claim 14 wherein the floating partition is deleted subsequent to rebooting the target computer system to a non-multitasking OS.
56. The system of claim 51 further comprising means for logging results of each of the diagnostics tests to a server connected to the target computer system.
57. The system of claim 51 further comprising means integrated into the step sequencing engine application for debugging the target computer system responsive to failure by the target computer system of one or more of the diagnostics tests.
58. The system of claim 57 wherein the means for debugging comprises a Main window of the step sequencing engine application for displaying results of the diagnostics tests.
59. The system of claim 58 wherein the means for debugging further comprises an EMR Control window of the step sequencing engine application from which specified diagnostics tests on the target computer system can be directly rerun.

60. The system of claim 58 wherein the means for debugging further comprises a Logs window of the step sequencing engine application from which logs associated with the results of the diagnostics tests performed on the target computer system can be directly accessed.